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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/406,729	09/28/1999	IN TAE HWANG	CIT/K-090	1898
34610	7590	12/15/2006	EXAMINER	
FLESHNER & KIM, LLP P.O. BOX 221200 CHANTILLY, VA 20153			ELALLAM, AHMED	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 12/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/406,729	Applicant(s) HWANG ET AL.	
	Examiner AHMED ELALLAM	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13,34-47 and 49-60 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13,34-47 and 49-60 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is responsive to Amendment filed on 10/11/2006.

Claims 1-13, 34-47, 49-60 are pending.

Information Disclosure Statement

1. The information disclosure statement filed 10/11/2006 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Note: Only the last two documents listed in the IDS have been received (Applicant may refer to PAIR system).

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-13 and 34-47, 49-60 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one

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skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

3. Claims 1 and 10 both recite selecting the transport format according to the decided bearer service profile type. However, the specification does not adequately describe how such a selection is made, such that a skilled artisan could make and use the claimed invention. Namely, the specification does not show any correlation between the decided bearer service profile type and how it is used to select the transport format. For example, which transport format is used when the bearer service is speech? Which transport format is selected when the bearer service is packet switched data?

4. Claims 6, 11 and 46, claim 46 recites determining the radio environment measurement comprises determining one of: an indoor environment model; a pedestrian environment model; and a vehicular environment model. However, the specification does not adequately describe how such a determination is made, such that a skilled artisan could make and use the claimed invention. Specifically, the specification doesn't describe the steps taken to recognize which of the models is an indoor environment model, a pedestrian environment model or a vehicular environment model. Claim 6 and 11 have similar limitations as in claim 46. Thus it is subject to the same rejection.

5. Claims 34 and 58 recite determining the transport format combination set according to the type of wireless service and the radio environment measurement. However, the specification does not adequately describe how such a determination is made, such that a skilled artisan could make and use the claimed invention.

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Specifically, the specification does not draw any correlation between what a particular wireless service and environment measurement are and how they correspond to a determined particular transport format combination set to be used. For example, if the wireless service is speech service and the environmental measurement indicates the radio is in a vehicle, what would be the corresponding transport format combination set?

6. Claims 63 recite selecting the transport format for each transport channel based on the transport format combination set. The specification does not adequately describe how such a selection is made, such that a skilled artisan could make and use the claimed invention. Namely, the specification does not describe how a specific format is selected based on a format combination set.

7. Claim 64 recites determining a service profile type based on at least one of a bearer service type or a bearer service class type, and establishing at least one radio access bearer based on the service profile type. However, the specification does not adequately describe how such a determination is made, such that a skilled artisan could make and use the claimed invention. Specifically, the specification does not draw any correlation between a bearer service type or a bearer service class type and the establishment of a radio bearer based on the service profile type. For example, what distinguishes between the radio access bearers when established based on respective different bearer service types or bearer service class type?

Claims 2-9,11-13,35-57, 59 and 60 are rejected because they depend on rejected base claims.

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8. Claims 63 and 64 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As to claim 63, the specification as originally filed doesn't describe the limitation "assigning a transport format combination set based on at least one bearer service type or a bearer service class". In particular the specification does not describe **one of** bearer service type or a bearer service class for the assigning of a transport format combination set. The transport format combination set as best understood is based on both bearer service type and bearer service class.

As to claim 64, the specification as originally filed doesn't describe the limitation "determining a service profile type based on at least one of a bearer service type or a bearer service class type" In particular the specification does not describe **one of** bearer service type or a bearer service class type for the determination of a service profile type. The service profile type as best understood is based on both bearer service type and bearer service class type.

Claim Rejections - 35 USC § 102

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

9. Claims 34-35, 38-47, 49-57 ^{and 58-60} are rejected under 35 U.S.C. 102(a) as being
^
anticipated by Roobol et al, A proposal for an RLC/MAC Protocol for Wideband CDMA

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Capable of Handling Real Time and Non Real Time Services. Hereinafter referred to as Roobol.

Regarding claim 34, Roobol discloses a mobile station that has packets to transmit and allocated a transmission format TF out of a TF set, wherein the optimal packet sizes depend on channel characteristics, see page 108, right hand column, page 109 paragraph A. (Examiner interpreted the channel characteristics to read on the claimed radio environment measurement). (Claimed method for receiving at least one type of wireless service; determining a radio environment measurement; and determining a transport format combination set according to said at least one type of wireless service and said radio environment measurement).

Regarding claim 35, as indicated above Roobol discloses that the mobile station has packets to transmit (such transmission capability is received at the application layer in accordance with the protocol layer, see page 107 figure 1)). (Claimed the at least one type of wireless service is received from an upper layer other than a radio resource control layer).

Regarding claims 38-47, Roobol discloses providing mixed services, see page 110, paragraph C.

Regarding claims 49 and 50, Roobol shows an RLC/MAC layer terminated at the RNC (radio network controller) layer for the transmission of mixed services in accordance with the specified TF set using layer 1 (physical Layer), see page 110 and Paragraph C.

Regarding claims 51 and 52, Roobol discloses the Mobile station transmit with all the TFs allocated in the TF set. (Claimed selecting at least one transport format within the transport format combination set as in claim 51; and the transport format is within a transport format set, as in claim 52).

Regarding claim 53, Roobol discloses Mac layer (figure 1) for receiving the TF set. See page 110, paragraph B.

Regarding claims 54, 55, Roobot discloses the mobile station being assigned two TFs. Further Roobot discloses capacity change message sent by the network, the message is pointer to another TF out of the allocated TF set, the message being sent over DCH. See paragraph A in its entirety. (Claimed transferring a transport format indicator to a physical layer (claim 54) the physical layer transmits a transport format combination indicator to a dedicated physical control channel based on the transport format indicator (claim 55).

Regarding claims 56 and 57, Roobot discloses wireless mobile station in communication over the RNC. See figure 1. (Claimed dedicated physical control channel is a channel between two wireless devices, as in claim 56 and the two wireless devices comprise at least one of a mobile station and a base station), as in claim 57).

Regarding claims 58-60, claims 58-60 are apparatus claims corresponding to method claims 34, 57, thus they are subject to the same rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 36-37 rejected under 35 U.S.C. 103(a) as being unpatentable over Roobol et al, A proposal for an RLC/MAC Protocol for Wideband CDMA Capable of Handling Real Time and Non Real Time Services. Hereinafter referred to as Roobol.

Regarding claim 36, Roobol doesn't specify the channel characteristic measurement is implemented in radio resource control layer. However, Examiner take official notice that the RRC layer is a standard layer of UMTS radio interface and is responsible for controlling the configuration of UMTS radio interface Layers 1 and 2. Since official notice is taken, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made to provide the channel characteristic of Roobol using an RRC layer above the RLC/MAC so that channel characteristic measurement of Roobol would conform to established UMTS standard.

Regarding claim 37, Roobol while disclosing the determination of the transport format combination set, it doesn't specify that such determination be implemented in a radio resource control layer. Examiner take official notice that transport format combination set are determined in the RRC layer in accordance with UMTS standard. Since official notice is taken, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made to provide an RRC layer above the

RLC/MAC Roobot to determine the transport format combination set in conformity with established UMTS standard.

Response to Arguments

11. Applicant's arguments filed 09/21/2006 have been fully considered but they are not persuasive:

Applicants' argument with reference to the 112 1st rejections of pending claims 1-13, 34-47, 49-60 is not persuasive.

Applicants related to the specification without relating to the specific questions raised with regard to 112 1st rejections. Applicant relied on the argument that the specification is enabling a person of skill in the art. For example, Applicants give an example of selecting a transport format within a higher rate coding method for the indoor environment model having a lower error rate and selecting a transport format with a lower-rate coding method for the vehicular environment model having a higher error rate. Hence, one of ordinary skill in the communication art can readily select a transport format according to the decided bearer service profile type based on the Application disclosure. Examiner disagrees, In accordance with specification, it not clear how the mobile distinguishes between such different environments and the steps taken to determine which environment the mobile station is dealing with in selecting transport format and deciding a bearer service profile type. Examiner concludes that stating that a specification is enabling to a person of ordinary skill in the art is not factual evidence.

Nevertheless, Applicant had provided two article (IDS) that have a publication date later than the claimed priority date of the instant Application. Such documentations are not considered evidence for supporting the non-enabling disclosure, because of the later publication dates.

Examiner thanks the Applicants for providing a clear copy of Appendix A. However, Applicants fail to indicate relevant passages of interest to obviate the 112 1st rejections.

Given the above Examiner maintained the 112 1st rejections of being proper.

Conclusion

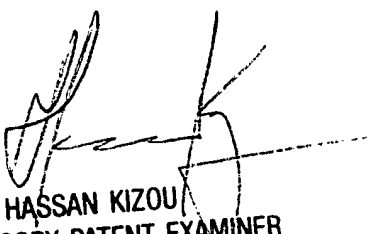
12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Roobol et al, US (6,363,058).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AHMED ELALLAM whose telephone number is (571) 272-3097. The examiner can normally be reached on 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, To Doris can be reached on (571) 272-7629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AHMED ELALLAM
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Art Unit 2616
12/11/06



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